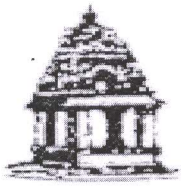


# ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

## ಯಲಹಂಕ ವಲಯ

### ತಾಂತ್ರಿಕ ವಿಭಾಗ: ಬ್ಯಾಟರಾಯನಪುರ

### ತಾಂತ್ರಿಕ ಉಪವಿಭಾಗ: ಬ್ಯಾಟರಾಯನಪುರ

**Name of work:** Detailed Estimate for the Work of Drilling of Borewells and Providing Pump and Motor at Saraipalya, Nagawara, and Rachenahalli SC COlony in Ward No. 06, Byatarayanapura Sub Division.

| | |
|---|---|
| Estimate Cost | 19.98 Lakhs |
| Work Code | 006-13-000082 |

# BRUHAT BANGALORE MAHANAGARA PALIKE

## YELAHANKA ZONE

**Estimate Cost Rs.** **1998000.00**

**Name of Work:** Detailed Estimate for the Work of Drilling of Borewells and Providing Pump and Motor at Saraipalya, Nagawara, and Rachenahalli SC COlony in Ward No. 06, Byatarayanapura Sub Division.

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| | **Drilling and Providing Pump and Motor** | | | | | | | | |
| 1 | Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction **(P.42, I. 9.4) PRED.SR 2011-12** | Each BW | | | | | | | |
| | Saraipalya | | 1 | | | | **1** | 1900.00 | **1900.00** |
| | Nagawara | | 1 | | | | **1** | 1900.00 | **1900.00** |
| | Rachenahalli SC Colony | | 1 | | | | **1** | 1900.00 | **1900.00** |
| 2 | Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) **P. 36 / I. 9.1 PRED SR 2010-11** | Rmtr | | | | | | | |
| | 0 to 50 m | | 3 | 50.00 | | | **150.00** | 287.00 | **43050.00** |
| | 50 to 100 m | | 3 | 50.00 | | | **150.00** | 379.00 | **56850.00** |
| | 100 to 150 m | | 3 | 50.00 | | | **150.00** | 422.00 | **63300.00** |
| | 150 to 200 m | | 3 | 50.00 | | | **150.00** | 464.00 | **69600.00** |
| | 200 to 250 m | | 3 | 50.00 | | | **150.00** | 513.00 | **76950.00** |
| | 250 to 330 m | | 3 | 80.00 | | | **240.00** | 550.00 | **132000.00** |
| 3 | Supply of ISI mark 175 mm nominal bore medium black ERW casing pipe of 5 mm thick black electric resistance continuous welded mild steel tube material confirming to IS 1387 / 1993 & manufactured from hot rolled steel skelp / stripes in random length of 4 to 7 mts both ends threaded confirming to IS 554 / 1985, one end fixed with a socket and the other and with a plastic protection end (including of all taxes) **SE PRED Approved Rate** | Rmtr | | | | | | | |
| | | | 3 | 70.00 | | | **210.00** | 1305.00 | **274050.00** |
| 4 | Providing 250mm dia PVC Pipe 6kg/cm **SE PRED Approved Rate** | Rmtr | | | | | | | |
| | | | 3 | 18.00 | | | **54.00** | 754.47 | **40741.00** |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 5 | Providing 175mm dia M.S Collar **SE PRED Approved Rate** | Each | | | | | | | |
| | | | 9 | | | | **9** | 150.00 | **1350.00** |
| 6 | Providing and fixing 160mm Borewell Cap with Clamp Set H/D | Each | 3 | | | | **3** | 695.00 | **2085.00** |
| 7 | Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 12.50 HP 20 stage. **SE RDED Approved Rate** | No | | | | | | | |
| | 15 HP 30 Stage | | 1 | | | | **1** | 52000.00 | **52000.00** |
| | 17.50 HP 30 Stage | | 2 | | | | **2** | 62550.00 | **125100.00** |
| 8 | Supplying of ISI marked galvanized mild steel tube (continously welded electric resistance welded (ERW) high frequency, induction welded (HFIW) Hot finished welded type of nominal bore given below screwed at both ends as per IS 554/1986 with latest amendments, pipes threaftes at one end and the other end protected asper specification in random lengths of 4 to 7 mtrs Confirming to IS 1239 part I/1990 with amendament 1-5 and with all its latest amendements if any. The pipes supplied should be with BIS mark No 3/08-09 2406/15.10.2008. | Rmtr | | | | | | | |
| | | | 3 | 300.00 | | | **900.00** | 415.00 | **373500.00** |
| **8A** | Heavy Duty Collars | | 3 | 52.00 | | | **156.00** | 130.00 | **20280.00** |
| 9 | Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and sheathed suitable for working voltage upto 1100 Volts. P. No. 49/ I No. 29-c(1) **2.5 Sqm mm of 36 strands 0.3mm dia Group - A KPWD Electrical SR 2010-11** | Mtr | | | | | | | |
| | | | 3x1 | 670.00 | | | **2010.00** | 185.00 | **371850.00** |
| 10 | Erection of pumpset including aligning and balancing with all necessary erection materials and labour including supply and erection of one pair supporting clamps, one borewell cap. Cable clips with bolts, nuts, valves guages etc., involoved in the job (Necessary GI pipe and specials with be supplied by the board at the site free of cost) **(As per rate approved KUWS & SB for year 2008-09** | No | | | | | | | |
| | | | 3 | | | | **3** | 3000.00 | **9000.00** |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 11 | Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., **P No. 32/ I No. 2/f KPWD Electrical SR 2010-11** | Each | | | | | | | |
| | | | 3 | | | | **3** | 285.00 | **855.00** |
| 12 | Supplying of LTUG cable having aluminium condutor PVC insulated shethed, galvnised steel, wire / steel tap armoured cable with PVC outer sheathing 1.1 KV class.**P No. 68/ I No. 4(d) 4 core 16 Sqmm KPWD Electrical SR 2010-11** | Mtr | | | | | | | |
| | | | 3 | 50.00 | | | **150.00** | 150.00 | **22500.00** |
| 13 | Labour charges for laying of 1.1 K.V class UG cable (PWD Electrical SR-1999-2000, **P No. 69 / I No. Ia In existing trencg/duct 6Sqmm to 16 Sqmm) KPWD Electrical SR 2010-11** | Mtr | | | | | | | |
| | | | 3 | 50.00 | | | **150.00** | 8.00 | **1200.00** |
| 14 | Digging or trenching of 0.6m deep x 0.5 mtr wide refilling the trench to the required ground level and consolidating etc., complete (as per Civil SR KSRB **1-2 P-7) P No. 70/ I. No. 6-c KPWD Electrical SR 2010-11** | Mtr | | | | | | | |
| | For Cutting Road Surface | | 3 | 40.00 | | | **120.00** | 60.00 | **7200.00** |
| 15 | Supplying and fixing of Class A (meaium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class **P. No. 70/ I No.9-A KPWD Electrical SR 2010-11** | Mtr | | | | | | | |
| | 40mm dia GI pipe | | 3 | 4.00 | | | **12.00** | 240.00 | **2880.00** |
| 16 | Supplying and fixing L.T. cast Iron pot head suitable for 1.1 KV class UG cable filled with necessary bituumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., **P. No. 70/ I No. 10-b KPWD Electrical SR 2010-11** | No. | | | | | | | |
| | 16Sqmm | | 3 | | | | **3.00** | 260.00 | **780.00** |
| 17 | Supplying, fixing, wiring, earth electrode for grounding conduits, I.C cutouts and other equipments on the meter board using 40 mm dia 2.90 mm thick GI pipe 2.5 m long buried in a pit. The pit should be filled with equal propotion of solt and charocoal 150 mm alround the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size, as per ISI specification 7.3.3 IS 732 using 12 mm dia bolts, nuts, washers and check nuts, etc., the pipe shall have 16 throught holes of 122 mm dia, (PWD Electrical SR-1999-2000, **(P No.68, I No. 1) KPWD Electrical SR 2010-11** | No | | | | | | | |
| | | | 3 | | | | **3** | 1950.00 | **5850.00** |
| 18 | Supplying and fixing of Porcelain fuse channel with cut out on existing wooden / panel using necessary nuts, bolts and washer etc., complete.... **P No. 32/I No 3d KPWD Electrical SR 2010-11** | No. | | | | | | | |
| | 100 Amps | | 3x6 | | | | **18** | 415.00 | **7470.00** |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 19 | KSRB 13-7.1-4: Providing and fixing in position 50mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications NO KBS 13.2.16 / 13.13 **Page No. 82Item No. 13.55 / PWD SR 2010-11** | Nos | | | | | | | |
| | | | 3 | | | | **3** | 1114.06 | **3342.00** |
| | Basic Rate | 1051.00 | | | | | | | |
| | Area Weightage @ 6% | 63.06 | | | | | | | |
| | **Total** | **1114.06** | | | | | | | |
| 20 | Providing NP/CP waste unions conforming to ISI specifications and fixing them in position as per directions including cost of materials, fixtures and conveyance to work spot etc., complete. P. No. 84 / I. No. 13.81.3 **PWD SR 2010-11** | No | | | | | | | |
| | 50mm dia | | 3 | | | | **3** | 201.40 | **604.00** |
| | Basic Rate | 190.00 | | | | | | | |
| | Area Weightage @ 6% | 11.40 | | | | | | | |
| | **Total** | **201.40** | | | | | | | |
| 21 | Supplying TPST with rewirable portelain channels in SM enclosure **PRED SR 2010-11 P.32 item No. 1b Group A** | **No.** | | | | | | | |
| | | | 3 | | | | **3** | 3050.00 | **9150.00** |
| 22 | Supplying and fixing 50mm dia GI X nipple with ISI mark with all lead and lift loading unloading and labour charges etc coomplete | No | | | | | | | |
| | | | 3 | 6.00 | | | **18** | 80.00 | **1440.00** |
| 23 | Supplying shunt capaitors conforming to IS 2834, 3phase 400/440 volts grade for power factor improvement of rotating machinery, Capacitor in KVAR rating Nos. 2KVAR capacity with all lead and lift =, loading, unloading and labour charges etc complete as per specifications | No | | | | | | | |
| | | | 3 | | | | **3** | 350.00 | **1050.00** |
| 24 | Supplying and fixing miniature circuit breakers/solaters on existing MCB distribution boards using necessary fixing materiasl wiring complete as requireds 5 to 30 amps triple pole with all lead and lift, loading, unloading and labour charges etc complete as per specifications | No | | | | | | | |
| | | | 3 | | | | **3** | 1000.00 | **3000.00** |
| 25 | Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm @ Rs.0.33 **P.No. 41, I. No. 38B KPWD Electrical SR 2010-11** | Sq.Cm | | | | | | | |
| | 16SWG | | 3x2 | 220.00 | 60.00 | | 79200.00 | | |
| | | | 3 | 450.00 | 25.00 | | 11250.00 | | |
| | | | | | | | **90450.00** | 0.33 | **29849.00** |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 26 | Supplying and delivery at site brand new star / Essen/ Lotus/Sun-shines/Adarsh/ GK Controls best indigenous make combined energy meter - cum- control panel board unit of size 600x450 x200 mm minimum mechanically strong vermin and water proof. The unit shall have two detachable doors suitable for operation on 3 ph, 50Hz, 380/440 volts, A.C supply with spring loaded latch, locking device with a key ribs should be provided inside the door, canopy apron and louvers ventilators shall be provided. the combined energy meter cum- control panel board unit suitable for operation. The panel board shall be fabricated on single unit in the above components for suitable pumpset. **PRED Bangalore Circle SE Approved Date 30.07.2010 15HP to 30 HP Star Delta Starter** | No. | | | | | | | |
| | | | 3 | | | | **3** | 10000.00 | **30000.00** |
| 27 | KSRB 13.6.3-6 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) **50mm** nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. KBS 13.2.6/13.3 **(P.81/I.13.37 PWD SR - 2010-11)** | Each | | | | | | | |
| | | | 3 | | | | **3** | 1582.58 | **4748.00** |
| | Basic Rate | 1493.00 | | | | | | | |
| | Area Weightage @ 6% | 89.58 | | | | | | | |
| | **Total** | **1582.58** | | | | | | | |
| 28 | KSRB 2-2.2 : Earth work excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in **hard soil** not exceeding 1.5m , in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m. specification, specification. No. KBS 2.1(b) / 2.3.5, **No. 5/ Item No. 2.4/ PWD SR 2011-12** | Cum | | | | | | | |
| | | | 1 | 325.00 | 0.60 | 0.90 | 175.50 | | |
| | | | | | | | **175.50** | 213.06 | **37392.00** |
| | Basic Rate | 201.00 | | | | | | | |
| | Area Weightage @ 6% | 12.06 | | | | | | | |
| | **Total** | **213.06** | | | | | | | |
| 29 | Providing and instalation at site of works P.V.C.Pipes including cost of pipes and specials and incluidng lowring into trenches, laying true to line, level and perfect linking at joints, leak proof including jointing encasing the pipe alround to a depth Not less than 15cm with grave or selected earth avalabile from the execavation Etc.**75MM 10 KSC Pvc Pipe Page No.14 item No.3.4.2 PRED SR 2011-12.** | Rmtr | | | | | | | |
| | | | 1 | 325.00 | | | 325.00 | 168.00 | **54600.00** |

| Sl No | Description of item | Unit | No | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 30 | Refilling the basement and pipeline trenches with selected available earth from trench excavation including watering consolidation in layers of 15 cm thick including disposing of the surplus earth with a lead of 200 meters **Item No. 1.6 Page No.3 PRED SR 2011-12** | Cum | | | | | | | |
| | | | | Qty. Vide Item No. 1 | | | **175.50** | 65.00 | **11408.00** |
| 31 | BESCOM Deposit for Engersation | L/S | 3 | 15000.00 | | | | | **45000.00** |
| 32 | Miscellaneous and Unforeseen Charges | L/S | | | | | | | **276.00** |
| | | | | | | | | | **1998000.00** |

**(Rupees Ninteen Lakhs Ninty Eight Thousand Only)**

**CERTIFICATE :**

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per S.R.of Rural Engineering Department
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Sub Division
Bangalore-24

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division
Bangalore - 92

ADMINISTRATIVELY SANCTIONED FOR Rs ~~1130~~ 1998 lacs
Rupees Ninteen lacs ninty Eight thousand only
Under _____

Registered as EE ( ) No _____ 3 ...9....
Subject to conditions contained in
enclosed memo EE ( ) No _____/91....
Dt _____ Estimate A/Sanctioned
No. YDH A/A 1130/13-14
dated 25/5/13 Rs 19.98 lacs

Joint Commissioner
(Yelahanka Zone)
BBMP. Bengaluru-92.

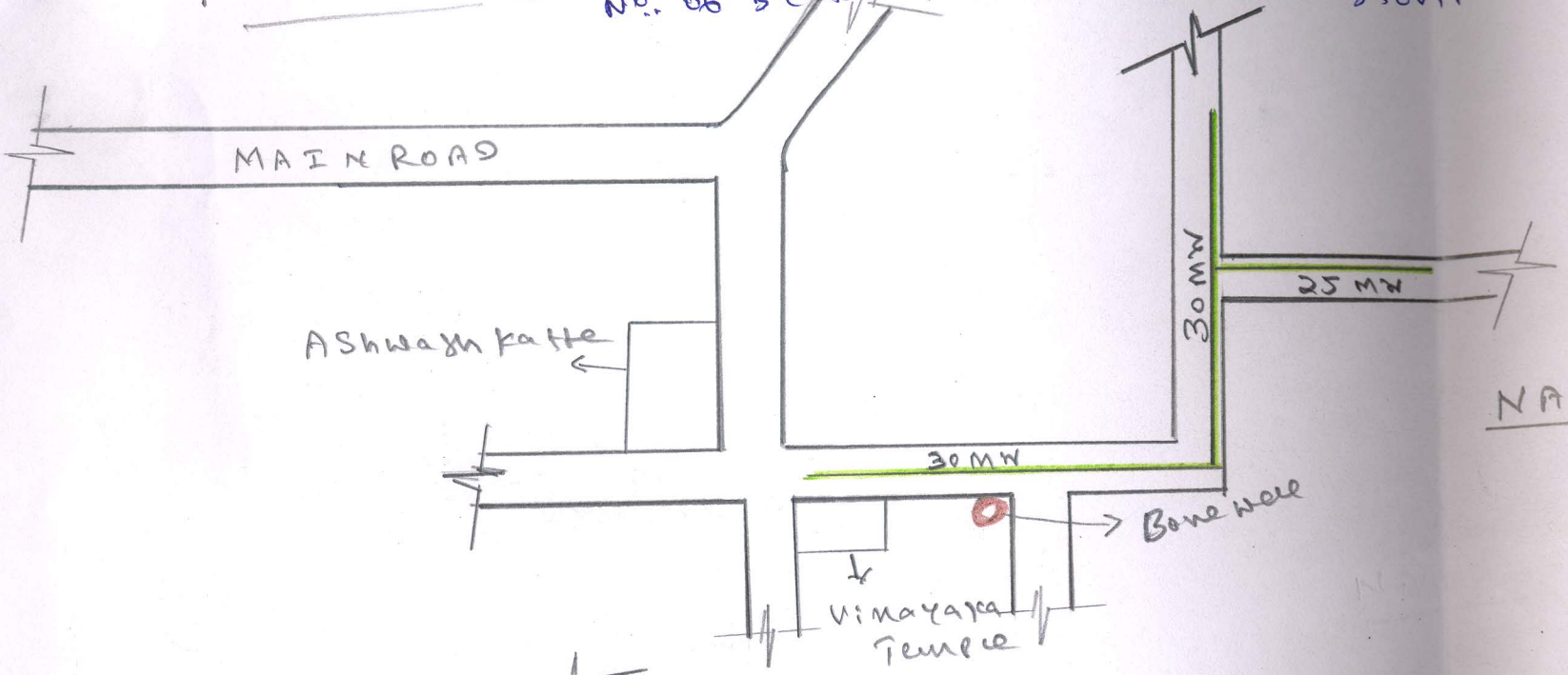
Tech. Sanction is accorded for Rs ~~8.00~~ 19.98 lakhs
Under CER No: 106 Dt: 27/5/13

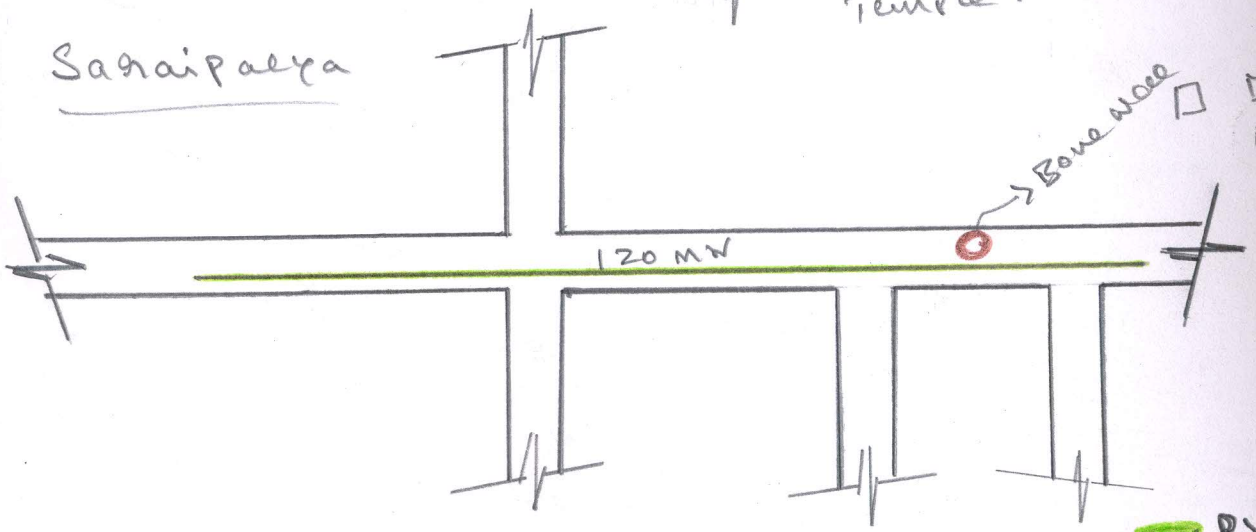
TA

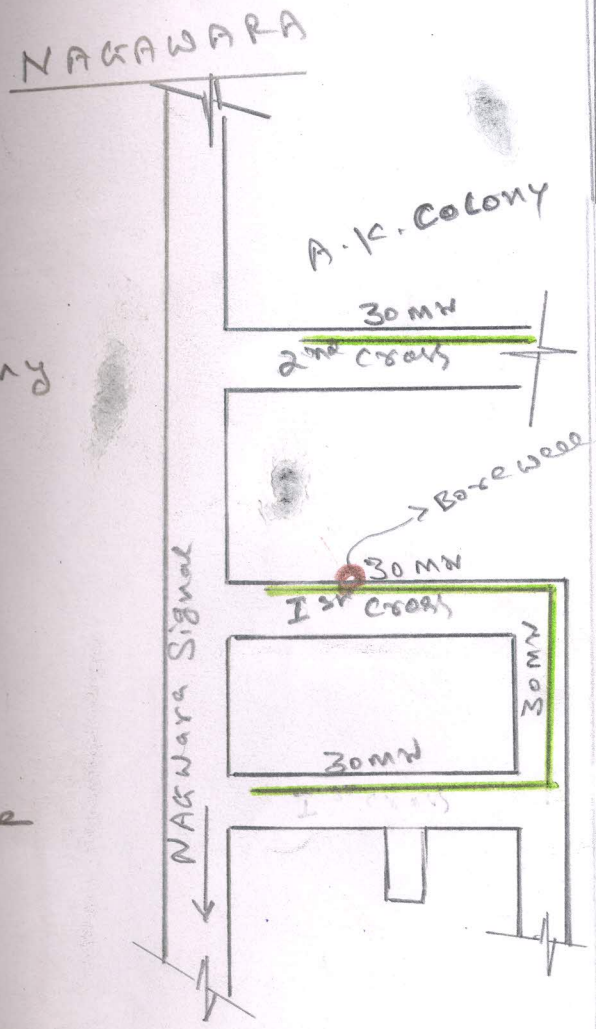
CE 27/5/13

Drilling & Boreweels and Providing Pump and Motor At Saraipalya Nagawara and Racunenahally SC colony in Ward No. 06 Byatarayanapura Sub division.

Racunenahally.




PVC Pipeline

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

Assistant Executive Engineer
Byatarayanapura Sub Division
B.B.M.P. Bangalore

Drilling & Bore well and Providing Pump and Motor At Sarai Palya Nagawara And Racherahally in Ward No. 06 Byatarayanapura Sub division

152 - BYATARAYANAPURA AC
WARD NO. 6- THANISANDRA

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

Assistant Executive Engineer
Byatarayanapura Sub Division
B.B.M.P. Bangalore

INDEX
- PROPOSED WARD BOUNDARY
- 100 PART BOUNDARY WITH NUMBER
- RAILWAY LINE
- ROAD
- SWD/ DRAIN/ TANK